

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-13 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Loktev et al (US 6,353,707).

Loktev shows a heating assembly with a flexible plate carrier (73) that is easily deformed relative to a support member, at least one heating element made of a thick film electrical resistor track (70), the support member being rigid and is made (75) of an insulating material, and an insulating layer (74) provided to the carrier layer by which the heating element is connected thereto, the support member engaging with the carrier at positions where there is no electrical resistor.

3. Claims 11-14 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al (US 4,574,186).

Sakai shows a heating assembly with a plate carrier made of plastics which inherently possesses some flexible characteristics that is easily deformed relative to a support member, the carrier having raised and lowered parts, a thick-film resistor track, the plate support member of an insulating material, an insulator layer provided to the carrier layer, and the support member engaging with the carrier layer where there is no electrical resistor.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burdon et al (US 6,572,830) in view of Loktev et al (US 6,353,707) or Sakai et al (US 4,574,186).

Burdon shows the heating assembly claimed including a plate carrier formed by two carrier parts placed against each other defining a passage for a medium for heating, a heating element formed in a thick-film resistor track and arranged on the carrier layer, a support member for engaging on the carrier layer. But, Burdon does not explicitly show that the carrier layer is flexible.

Loktev or Sakai shows that it is known to provide a flexible carrier having a heating element thereon which is further supported with a rigid support member.

In view of Loktev or Sakai, it would have been obvious to one of ordinary skill in the art to adapt to adapt Burdon with a carrier layer that is flexible to allow a desired shape or form for the intended purposes. Also, while Burdon does not show that the carrier is flexible, Burdon shows that it is known that plastic material is used for the carrier and since a ceramic material can be flexible to a certain extent, it would also have been obvious to one of ordinary skill in the art to provide the carrier made of any

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suitable materials, including flexible material as that of Loktev or Sakai, as long as a suitable protection can be provided for the heated medium.

Response to Arguments

6. Applicant's arguments filed 9/15/08 have been fully considered but they are not persuasive.

The applicant argues the applied art Loktev or Sakai does not show the flexible carrier and the rigid support as claimed in claim 1. It is noted that both Lokev or Sakai shows a carrier is made of plastic material that is inherently flexible which is easily deformed with a support that shown to be rigid which is inherently rigid to absorb a load without substantial deformation of the carrier.

With respect to Burdon, the applicant argues Burdon does not show the recited flexible carrier. It is noted that Loktev or Sakai has been applied to show a carrier that is flexible such as a plastic material which Burdon also shows as the material for its carrier layer. It is also noted that the ceramic layer in Burdon includes a ceramic or glass material that is dispersed in a polymer binder with additives such as plasticizers and dispersants (column 7, lines 1-3). Thus, the ceramic layer having the plastic materials would display some flexibility as does in a plastic.

Since Loktev or Sakai, and Burdon in view Loktev or Sakai, show all the recited structure, the applied art also meet the inherent characteristics of the recited element including the flexible carrier that is adapted to easily deform and the rigid support that is sufficiently rigid to absorb a load without a substantial deformation of the carrier. Thus, the applicant's arguments are not deemed persuasive.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (6:30-3:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sang Y Paik/

Primary Examiner, Art Unit 3742

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